

Image Diagnosis: Abnormal Plain Films from the Emergency Department

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Case 1. Soft tissue lateral neck x-ray demonstrating acute epiglottitis.

The epiglottis is swollen and looks like a thumbprint (thumbprint sign) at the level of the hyoid bone. A normal epiglottis in a true soft tissue lateral neck is thin. The epiglottis can be directly visualized using nasopharyngoscopy or direct laryngoscopy in skilled hands. Because of the *Haemophilus influenzae* type b (HIB) vaccine and herd immunity, this condition is relatively rare in children. It may still occur in adults, although it tends to result in less airway compromise because the adult airway has a larger diameter. Despite this, epiglottitis remains an airway emergency, requiring close observation and potential emergent airway intervention.



Case 2. Plain abdominal film (erect) demonstrating free air under both hemidiaphragms.

A small sliver of free air (black) is seen on close inspection directly under the diaphragms in this upright film. In the appropriate clinical setting, a patient with abdominal pain and free air on plain film is an ominous sign. Free air may be present in postoperative patients and has been reported following vigorous sexual activities.

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